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# UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEVEN W. LUNDBERG

Appeal 2017-000386 Application 11/098,761<sup>1</sup> Technology Center 3600

Before JOHN A. JEFFERY, BRUCE R. WINSOR, and JUSTIN BUSCH, *Administrative Patent Judges*.

BUSCH, Administrative Patent Judge.

## **DECISION ON APPEAL**

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30, which are all the claims pending in the application.<sup>2</sup> Claims 5, 7, 8, 11, 14, 20, and 22 were cancelled previously. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

<sup>&</sup>lt;sup>1</sup> According to Appellant, the real party in interest is FoundationIP, LLC. Br. 1.

<sup>&</sup>lt;sup>2</sup> Although the Examiner indicates in the Final Action that claim 4 is not pending (*see* Final Act. 1–2, 9; *but see id.* at 6, 14–15), Appellant indicates this claim is pending (*see* Amendment 3 (May 4, 2015)). Accordingly, for clarity, we indicate here claim 4 is pending, and deem the Examiner's error in this regard harmless.

## STATEMENT OF THE CASE

Claims 1, 9, 15, 18, and 23 are independent claims. The claims relate generally to "a system and method for information disclosure statement [(IDS)] management." Spec., Abstract. Claim 1 is representative and reproduced below:

# 1. A method comprising:

maintaining a patent case database, wherein the database includes data about a plurality of cases, the data comprising: a priority date, an association of related cases, and a pending claim set;

automatically deriving, by a processor, first case keywords from a pending claim set of a first case;

performing, by the processor, a keyword analysis on a reference document based on occurrences of the first case keywords in the reference document to derive a score;

increasing relevancy of the score based on data associated with the reference document, the data associated with the reference document being selected from a group comprising: a priority date of the reference document, an author of the reference document, an assignee of the reference document, a number of citations of the reference document, and a source of the reference document;

associating, by the processor, the reference document with the first case and with cases related to the first case in the case database based on the score; and

marking the reference for inclusion in a disclosure statement based on the score.

## **RELATED APPEALS**

Appellant did not identify any related appeals. See Br. 1–2. However, there are at least thirty-one (31) related appeals:

Appeal No.	Application No.	Decided/Status
2009-005709	10/128,141	Decision mailed Mar. 23, 2010
2009-006404	10/874,486	Decision mailed Aug. 2, 2010
2011-009966	11/061,383	Decision mailed Jan. 31, 2014
2012-004166	11/061,312	Decision mailed Nov. 4, 2014
2015-000321	13/309,127	Decision mailed July 26, 2017
2015-003180	13/309,039	Decision mailed Sept. 23, 2016
2015-007422	13/309,146	Decision mailed June 1, 2016
2016-000319	13/309,080	Decision mailed May 27, 2016
2016-000912	13/309,060	Decision mailed Aug. 25, 2017
2016-001687	11/888,632	Decision mailed Jan. 19, 2017
2016-002121	13/309,200	Decision mailed Aug. 28, 2017
2016-002680	13/310,279	Decision mailed Aug. 30, 2017
2016-002792	12/605,030	Decision mailed Sept. 1, 2017
2016-006797	13/310,368	Decision mailed Aug. 30, 2017
2016-007186	13/573,803	Decision mailed July 28, 2017
2016-007415	13/464,598	Decision mailed July 31, 2017
2016-007623	13/408,877	Decision mailed Sept. 6, 2017
2016-007787	13/310,322	Decision mailed Sept. 20, 2017
2016-008030	13/253,936	Decision mailed Aug. 3, 2017
2017-000280	13/408,917	Decision mailed Sept. 12, 2017
2017-002337	14/010,376	Decision mailed Sept. 8, 2017
2017-003702	14/483,903	Decision mailed Sept. 25, 2017
2017-003815	14/094,542	Decision mailed Sept. 18, 2017
2017-004158	14/010,391	Decision mailed Oct. 25, 2017
2017-004159	14/010,380	Decision mailed Sept. 27, 2017

2017-004188	14/010,400	Decision mailed Nov. 3, 2017
2017-006390	13/409,189	Pending
2017-006642	13/310,452	Decision mailed Sept. 27, 2017
2017-011247	13/253,811	Decision mailed Nov. 1, 2017
2017-011549	14/608,520	Pending
2017-011552	14/628,941	Pending

## **REJECTIONS**

Claims 1–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30 stand rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter. *See* Final Act. 5–8.<sup>3</sup>

Claims 1, 9, 15, and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. *See* Final Act. 8.

Claims 1–4, 6, 9, 10, 12, 13, 15–19, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grainger (US 2002/0065676 A1; May 30, 2002), Poltorak (US 2004/0158559 A1; Aug. 12, 2004), and Barney (US 6,556,992 B1; Apr. 29, 2003). *See* Final Act. 8–28.<sup>4</sup>

Claims 23–30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grainger, Poltorak, Barney, and Niwa (US 5,987,460; Nov. 16, 1999). *See* Final Act. 28–34.

<sup>&</sup>lt;sup>3</sup> Claims 7, 11, and 20 are mistakenly included in the header for this rejection (*see* Final Act. 6), but are indicated by Appellant as cancelled by amendment (*see* Amendment 3, 5 (May 4, 2015)). We find the Examiner's typographical error to be harmless.

<sup>&</sup>lt;sup>4</sup> Claim 4 is mistakenly omitted from the header for this rejection (*see* Final Act. 9), but otherwise appears in the body of the rejection (*id.* at 14–15). We find the Examiner's typographical error to be harmless.

# THE § 101 REJECTION

The Examiner finds that specific elements from the claims are directed to "the abstract idea of document management." Final Act. 5–6; Ans. 3–5. The Examiner adds that claim 1 does not include additional elements sufficient to transform the abstract idea into a patent-eligible application of the abstract idea and, therefore, is ineligible under § 101. Final Act. 6–8; Ans. 5–6.

Appellant contends that specific elements from the independent claims, when considered in combination with other elements of the independent claims, cannot be construed as abstract ideas. Br. 12. Appellant further argues the independent claims include specific elements requiring more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. *Id.* at 12–15.

#### **ANALYSIS**

In Mayo Collaborative Services v. Prometheus Laboratories, Inc., 566 U.S. 66, 71–73 (2012), the Supreme Court established an analytical framework under § 101 to distinguish patents that claim patent-ineligible laws of nature, natural phenomena, and abstract ideas—or add too little to such underlying ineligible subject matter—from those that claim patent-eligible applications of those concepts. To determine whether claims are patent eligible under § 101, we apply the Supreme Court's two-step test articulated in Alice Corp. Pty. v. CLS Bank International, 134 S. Ct. 2347 (2014).

# Alice Step One

According to *Alice* step one, "[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept," such as an abstract idea. *Alice*, 134 S. Ct. at 2355 (emphasis added). "[T]he 'directed to' inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, based on whether 'their character as a whole is directed to excluded subject matter." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)) (second bracket in original).

The Specification discusses the problem to be solved by the invention—reducing the time of determining which patent applications must disclose a reference document. Spec. 1–2. According to the Specification, the inventor provides a method that derives a score by comparing extracted characters between the reference document and a patent application's pending claims. *Id.* at 4–5. "The score is then used to determine if the reference document should be provided in a disclosure statement to a patenting authority. If the score meets a certain criteria, the [reference] document is marked in the database for disclosure." *Id.* at 5.

Appellant argues the claims as a group. *See* Br. 8–10. We, therefore, select independent claim 1 as the representative claim for this group, and the remaining claims 2–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv). Here, claim 1 recites four distinct steps: (a) maintaining a patent case database; (b) deriving a score based on comparing keywords between a reference document and a pending claim set; (c) increasing relevancy of the score based on data associated with the reference document; and (d) marking the reference based on the score. Each

of these steps involve information. In particular, various forms of information are stored in a database, derived by comparing the stored information, increased based on other information associated with the stored information, and marked based on the derived information. This is the essence of information gathering, analyzing, and organizing that is fundamental to human behavior. Thus, in light of the Specification discussed above, we agree with the Examiner that claim 1 as a whole, is directed to document management, and document management is a method of organizing human activity. *See* Final Act. 6; Ans. 4.

Therefore, claim 1 is directed to an abstract idea under the first step of the *Alice* analysis.

# Alice Step Two

Turning to the second step of the *Alice* analysis, we see nothing in the claimed subject matter that transforms the abstract idea of document management into an inventive concept. Specifically, none of steps (1)–(4) discussed above, either individually or "as an ordered combination"... 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78).

Appellant contends (1) the automatic keyword analysis to derive a score for a reference, and (2) the marking of the reference for inclusion in a disclosure statement based on the score, as claimed, amount to significantly more than an abstract idea because a user meets the duties of prior art disclosure more efficiently and faster. Br. 13. Appellant argues this process solves technological problems, improves the functioning of a computer, or improves a technical field. Br. 14–15. We disagree. The only portion of the claimed method that could be considered "technological" is the use of

generic computer hardware, i.e., the claimed "database" and "processor," which is not enough to confer subject matter eligibility. *See Alice*, 134 S. Ct. at 2358 ("[I]f a patent's recitation of a computer amounts to a mere instruction to 'implemen [t]' an abstract idea 'on ... a computer,' that addition cannot impart patent eligibility.") (citation omitted). The claimed method does not improve a computer's functionality or efficiency, or otherwise change the way the computer functions. *Cf. Enfish*, 822 F.3d at 1335. Nor does the claimed method represent an improvement to a technical field, but a computerization of a method of organizing human activity. Merely reciting a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. *Alice*, 134 S. Ct. at 2358. In other words, merely reciting an abstract idea while adding the words "apply it with a computer" does not render an abstract idea non-abstract: there must be more. *See id.* at 2359; *see also DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

Thus, "the claims at issue amount to 'nothing significantly more' than an instruction to apply the abstract idea . . . using some unspecified, generic computer." *Alice*, 134 S. Ct. at 2360 (citing *Mayo*, 566 U.S. at 71). Therefore, we are not persuaded that the Examiner erred in rejecting claim 1, and claims 2–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30, which fall with claim 1.

# THE § 112, SECOND PARAGRAPH REJECTION

The Examiner finds *increasing relevancy of a score*, recited in claim 1, renders the claim indefinite because it raises a question of "whether

increasing the score will increase relevancy or decreasing the score will increase relevancy." Ans. 7.

Appellant argues that claim 1 is definite because, if the claim is read in light of page 5 of the Specification, those skilled in the art would understand that increasing the relevancy of the score is independent of whether the score is increased or decreased. Br. 16–17. According to Appellant, "the relevancy of the computed score may be improved by using various characteristics associated with the reference." *Id.* at 17.

## **ANALYSIS**

The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1676 (Fed. Cir. 1986). If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1385 (Fed. Cir. 1986). "A claim is not 'indefinite' simply because it is hard to understand when viewed without benefit of the specification." *S3, Inc. v. NVidia Corp.*, 259 F.3d 1364, 1369 (Fed. Cir. 2001).

We will not sustain the Examiner's indefiniteness rejection of claim 1 that is based on requiring the claims to include an explanation of whether increasing relevancy of a score increases or decreases the score itself.

Ans. 7. The Specification discloses that a reference document's information alters *relevancy of scoring* for purposes of determining whether the reference document is marked for inclusion in a disclosure statement, but does not alter *the scoring* itself. Spec. 5:8–22. Thus, we agree with Appellant (*see* Br. 16–17) that one of ordinary skill in the art would

understand that increasing relevancy of a score is independent of increasing or decreasing the score.

The Examiner has not established that the claims' lack of an explanation regarding "whether increasing the score will increase relevancy or decreasing the score will increase relevancy" would render the bounds of the claim when read in light of the Specification unclear to one of ordinary skill in the art. Final Act. 8; Ans. 7. Thus, on this record, we find claim 1 is sufficiently clear.

For the reasons discussed above, we are persuaded the Examiner erred in rejecting claim 1 under § 112, second paragraph. Accordingly, we do not sustain the Examiner's rejection of claim 1. For similar reasons, we do not sustain the Examiner's rejection of claims 9, 15, and 23 which recite similar limitations.

# THE OBVIOUSNESS REJECTION OVER GRAINGER, POLTORAK, AND BARNEY

The Examiner finds that Grainger, Poltorak, and Barney collectively teach or suggest all recited elements of claim 1. Final Act. 9–13. Among other things, the Examiner finds Grainger performs a keyword analysis on a reference document based on occurrence of first case keywords in the reference document. Final Act. 10 (citing Grainger ¶ 47); Ans. 7–8. The Examiner also cites Poltorak for teaching deriving first case keywords from a pending claim set of a first case and deriving a score by performing a keyword analysis on a reference document based on occurrence of first case keywords in the reference document. Final Act. 11–12 (citing Poltorak ¶¶ 25, 30–37); Ans. 8–9. Barney is also cited for teaching increasing relevancy of the score based on data associated with the reference document.

In view of these collective teachings, the Examiner concludes that claim 1 would have been obvious. Final Act. 13 (citing Barney 24:15–50); Ans. 9.

Appellant argues, among other things, that the Examiner's reliance on Grainger is misplaced because, although Grainger's user manually identifies a reference document in response to the user's search strings, Grainger does not teach or suggest deriving a score to identify the reference document. Br. 22–23. Appellant further contends Poltorak's reference document in a search result is not assigned a score based on the occurrences of keywords in the reference document. *Id.* at 23–25. Appellant further contends Grainger teaches away from automated reference document identification based on a score because Grainger's reference document is manually identified. *Id.* at 25–26. Appellant also argues Barney's patent rating method does not indicate relevancy of a score based on data associated with a patent application. *Id.* at 20.

#### **ANALYSIS**

We begin by noting the Examiner's obviousness rejection relies on Grainger to show, among other things, performing "a keyword analysis on a reference document based on occurrences of the first case keywords in the reference document," as recited in claim 1. Final Act. 10 (citing Grainger ¶ 47); Ans. 7–8. For example, the Examiner finds Grainger's user filing a patent application related to an on-line auction method may search web sites for an existing on-line auction web site (the claimed "reference document") based on keywords. Ans. 7–8. The Examiner acknowledges Grainger's keyword analysis does not automatically derive a score based on the occurrences of the keywords in the reference document, and cites Poltorak for teaching that an automatic score derivation would have been

obvious. Final Act. 11–12 (citing Poltorak ¶¶ 25, 30–37); Ans. 8–9. Therefore, Appellant's argument regarding Grainger's alleged shortcomings with respect to the recited limitations pertaining to a keyword analysis to derive a score is unpersuasive where, as here, the rejection is not based solely on Grainger, but rather on the combination of Grainger and Poltorak. Br. 23, 26; *see In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). To the extent Appellant contends Grainger's search results are not "already available," such argument is not commensurate with the scope of the claim. Br. 22. Nor is Appellant's contention that Grainger's search method "requires a user to enter a search string or perform a search action on the [I]nternet" persuasive because the scope of the claim does not preclude a user from entering a search string or performing a search on the Internet. *Id.* at 23.

The Examiner's obviousness rejection further relies on Grainger to teach or suggest marking the reference document for inclusion in a disclosure statement. Final Act. 10 (citing Grainger ¶ 48–49). We find unpersuasive Appellant's contentions that the Examiner's motivation is based on hindsight and that one of ordinary skill in the art would not be motivated to modify Grainger's manual selection of the reference document for marking to include Poltorak's automatic scoring because Grainger teaches away from the claimed invention. Br. 25–26. Although Grainger's manual selection does not contemplate an automated selection by scoring, we do not see how Grainger criticizes, discredits, or otherwise discourages investigation into an automated process. *See Norgren, Inc. v. Int'l Trade Commission*, 699 F.3d 1317, 1326 (Fed. Cir. 2012) (citation omitted); *see also In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006). We find the Examiner

has set forth an articulated reasoning with some rational underpinning to combine Grainger, Poltorak, and Barney, i.e., "to provide the predictable result of quantitatively determining how relevant a reference document is to a patent case; and providing an efficient and automated means of searching for prior art for a patent application based on the claim terms of the patent application." Final Act. 12; *see also KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d at 978).

Nor do we find error in the Examiner's finding that Poltorak's search results correspond to the recited score derivation. *See* Ans. 8 (citing Poltorak ¶¶ 30–37). Appellant's arguments that paragraph 31 of Poltorak does not disclose computing a relevancy score for a reference document and that Poltorak's disclosure of methods of assigning relevancy scores is inadequate, Br. 24–25 (citing Poltorak ¶ 39), do not persuasively rebut the Examiner's reliance on paragraph 37 of Poltorak. Final Act. 12; Ans. 8.

According to Poltorak, key terms of a patent claim's preamble and major limitations are identified. Poltorak, Abstract, ¶25. Poltorak then formulates search queries to include the identified key terms of the patent claim. *Id.* at Abstract, ¶¶28–29. Upon using the formulated search queries on various search engines, Poltorak's search results are organized "in order of decreasing contextual relevance," which has criteria related "to the steps of determining key terms of the preamble and the limitations." *Id.* ¶¶ 32, 37. Because the term "score" is not defined in the Specification, we interpret the term with its plain meaning, namely "[a] result, usually expressed numerically, of a test or examination." The American Heritage Dictionary of the English Language 1618 (*n.* 2c) (3rd ed. 1992). Because Poltorak's search results are organized in relation to the key terms,

Poltorak at least suggests performing a keyword analysis on each individual search result based on the occurrences of key terms in each individual search result to derive a resulting placement in the search results (the claimed "score").

Lastly, we find unpersuasive Appellant's contentions regarding Barney's alleged shortcomings pertaining to increasing relevancy of the score based on data associated with the reference document as claimed. Br. 19–21. At the outset, we note the claim requires only increasing relevancy of a score based on data associated with a *reference document*, which may or may not be a patent application, let alone the patent application's pending claim set that derives the first case keywords as claimed. Thus, to the extent Appellant contends Barney's patent rating is different from relevancy of a score that "may be increased or improved using some data associated with the *patent application*," such an argument is not commensurate with the scope of the claim, which recites no such function. Br. 20 (emphasis added).

Barney is generally directed to rating patents. Barney, Abstract. Barney's patent report identifies a patent being reported and includes ratings of the reported patent related to patent breadth, defensibility, and commercial relevance. *Id.* at 24:18–20. Barney's commercial relevance rating of the reported patent is "adjusted to be predictive of patent maintenance rates and/or mortality rates based on . . . at least one comparative metric based on a normalized forward patent citation rate (normalized according to patent age)." *Id.* at 24:25–31; *see also id.* at 23:44–55 (correlating forward citations as "the number of citations subsequently received by a patent"). Because the reported patent's

commercial relevance rating is adjusted based on a "forward citation rate," and forward citations are defined as the number of citations subsequently received by a patent, Barney at least suggests that the reported patent's commercial relevance rating is adjusted based on a rate of citations subsequently received by the reported patent over time. In other words, if the rate of citations subsequently received by the reported patent changes over time, then Barney's reported patent's commercial relevance rating is adjusted. Thus, Barney at least suggests increasing relevancy of the reported patent's commercial relevance rating based on data associated with the reported patent, the data associated with the reported patent being a number of citations of the reported patent.

Accordingly, we are not persuaded the Examiner erred in rejecting independent claim 1, and claims 2–4, 6, 9, 10, 12, 13, 15–19, and 21 for similar reasons.

## THE OTHER OBVIOUSNESS REJECTION

We also sustain the Examiner's obviousness rejection of claims 23—30. Ans. 10–11. Because these rejections are not argued separately with particularity, we are not persuaded of error in these rejections for the reasons previously discussed.

## **CONCLUSION**

The Examiner did not err in rejecting claims 1–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30 under 35 U.S.C. §§ 101 and 103.

The Examiner erred in rejecting claims 1, 9, 15, and 23 under § 112, second paragraph.

# **DECISION**

The Examiner's decision in rejecting claims 1–4, 6, 9, 10, 12, 13, 15–19, 21, and 23–30 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R.  $\S$  1.136(a)(1)(iv) . See 37 C.F.R.  $\S$  41.50(f).

# <u>AFFIRMED</u>